

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,668,312 B2
APPLICATION NO. : 10/552384
DATED : February 23, 2010
INVENTOR(S) : Lecomte et al.

Page 1 of 3

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

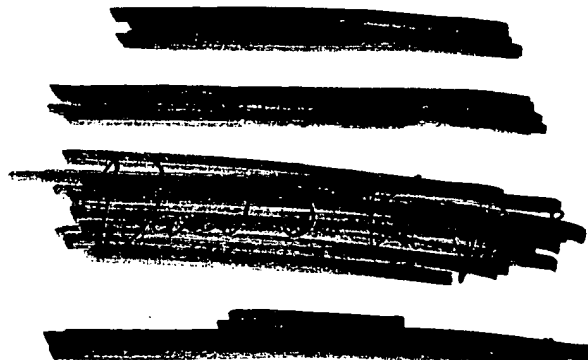
The title page should be deleted to be replaced with the attached title page.

Please insert the attached "Figure" as the sole drawing of the application.

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NEW
TITLE
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This certificate supersedes Certificate of Correction
issued June 15, 2010.





US007668312B2

(12) United States Patent
Lecomte et al.**(10) Patent No.: US 7,668,312 B2**
(45) Date of Patent: *Feb. 23, 2010**(54) SCRAMBLING, DESCRAMBLING AND
SECURE DISTRIBUTION OF AUDIO-VISUAL
SEQUENCES FROM VIDEO ENCODERS
BASED ON WAVELET PROCESSING**

See application file for complete search history.

(56) References Cited**U.S. PATENT DOCUMENTS**

6,370,197	B1	4/2002	Clark et al.	
6,571,014	B1 *	5/2003	Larkin	382/232
7,382,969	B2 *	6/2008	Dawson	386/94
2001/0053222	A1	12/2001	Wakao et al.	

FOREIGN PATENT DOCUMENTS

EP	0 734 164	A2	9/1996
EP	1 033 880	A2	9/2000
WO	WO 98/42098	A1	9/1998
WO	WO 00/31964	A1	6/2000
WO	WO 01/97520	A2	12/2001

OTHER PUBLICATIONS

Moyano et al., "Efficient 3D wavelet transform decomposition for video compression," Digital and Computational Video, 2001. Proceedings of Second international workshop USA. IEEE, Feb. 8, 2001, pp. 118-125.*

Medialiving, *A New Concept in Data Protection*. ISO/IEC JTC 1/SC 29/WG1, No. N2881, Mar. 11, 2003, pp. 1-10.

* cited by examiner

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(57) ABSTRACT

A process for secured distribution of video sequences according to a digital stream format stemming from an encoding based on a processing by wavelets including frames including blocks containing coefficients of wavelets describing the visual elements, including analyzing the stream prior to transmission to client equipment to generate a modified main stream by deletion and replacement of selected information coding the original stream and having the format of the original stream, and complementary information of any format comprising the digital information coding the original stream and suitable for permitting reconstruction of the modified frames; and transmitting the modified main stream and the complementary information separately from a server to addressed equipment.

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Bourg-la-Reine (FR)**(*) Notice:** Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 556 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: 10/552,384**(22) PCT Filed:** Apr. 16, 2004**(86) PCT No.:** PCT/FR2004/000947§ 371 (c)(1),
(2), (4) Date: Dec. 13, 2005**(87) PCT Pub. No.:** WO2004/095840

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G06F 9/00 (2006.01)

(52) U.S. Cl. 380/210; 382/100; 382/232;
725/32**(58) Field of Classification Search None****64 Claims, Drawing Sheet**

